Final report

OWMC
Ontario
Waste Management
Corporation

A provincial crown corporation

LEON KENTRIDGE
ASSOCIATES LTD

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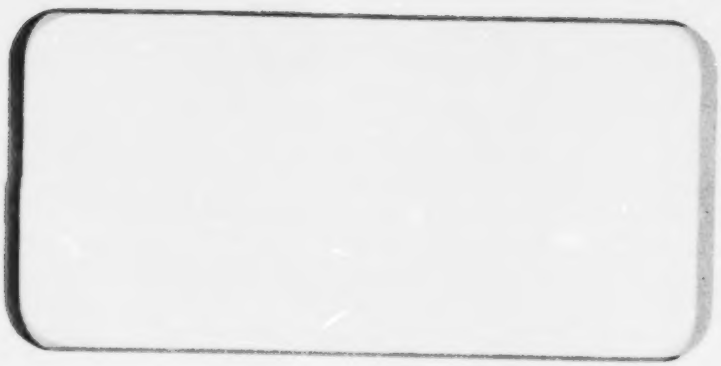

SITE ASSESSMENT
PHASE 4B:
LAND USE

Prepared for
The Ontario Waste Management Corporation

Submitted by

Leon Kentridge Associates Limited

March, 1988

LEON KENTRIDGE
ASSOCIATES LIMITED
PLANNING CONSULTANTS

March 31, 1988
84006

Ontario Waste Management Corporation
2 Bloor Street West
11th Floor
Toronto, Ontario
M4W 3E2

Attention: Mr. P.D. Hunt

Dear Sir:

Re: Site Assessment
Phase 4B: Land Use

We are pleased to submit our final report for this study.

This report presents our analysis of the land use factors of Phase 4B, our reviews of inputs from individual Site Assessment Consultants and our conclusions concerning impact management and future use of the site.

Thank you for this opportunity to participate in the process.

Yours truly,

LEON KENTRIDGE ASSOCIATES LIMITED

Leon R. Kentridge, MRAIC, MCIP

LRK:aj

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EXECUTIVE SUMMARY

PURPOSE OF THE REPORT

The purpose of this report is to document the work undertaken by Leon Kentridge Associates Limited, as the land use consultant to Ontario Waste Management Corporation (OWMC) during Phase 4B - Site Assessment. This report describes existing and future land uses and land use impact predictions of Ontario Waste Management Corporation's proposed industrial waste treatment and disposal facility on the preferred site, and proposed means of impact management with respect to the construction, operation and decommissioning of this facility.

SCOPE AND METHOD

The land use component of site assessment involved the review and update of studies on existing conditions, proposed and planned land uses, and predicted impact and management measures for the West Lincoln site.

This analysis addressed the site vicinity and access road study area. The analysis was limited specifically to residential, commercial and industrial land uses and only included other land uses such as agricultural, recreational and social issues if these involved impact on future land use or planning policies.

Existing and planned land uses were determined from municipal and provincial plans and policies and discussion with municipal officials in the Township of West Lincoln, Town of Lincoln, and the Regional Municipality of Niagara.

The scope of the work included:

1. A review of development activity and offical plans and policies.

2. A review of land use policy interpretation in other OWMC consultants reports.

3. A review of the conclusions of the Phase 4A - land use report concerning land use compatibility, based upon the more detailed

nuisance impact and community character impacts in the site vicinity and along the access road developed during Phase 4B - Site Assessment.

4. A review and evaluation of proposed OWMC impact management measures, particularly in the area of future land use control.

5. A review of and commentary on proposals concerning decommissioning and after-use.

The approach taken to this work comprised three steps, as follows:

- Update and refine existing land use conditions;

- Predict and interpret land use impacts and management measures; and

- Develop ways to monitor and/or manage land use impacts.

PREMISES AND POSTULATES

The land use consultants were provided with reports by other Site Assessment consultants. Information from these formed part of the basis for the analysis described in this report.

Postulates

The following postulates were made by the consultant:

1. Residential development and growth trends will continue as planned, in accordance with regional and local planning policy.

2. Proposed water and sewer services to Smithville will be approved and constructed in the next 1 to 3 years.

Premises

1. Agriculture will continue to be the predominant economic activity in the Township.

2. Employment growth will occur in line with the predictions of the economic planning consultant.

3. Construction of OWMC's facility will commence in about 1990, and will operate for a minimum of 20 years.

STATUS OF DATA

The data obtained from municipal planning officials are current to September, 1987.

Other information was provided by Site Assessment consultants in the social impact, agriculture, economics, historic and archeology, noise, visual impact and air quality disciplines.

MAIN FINDINGS

The results of the land use analysis are summarized as follows:

1. Development activity and land use trends are consistent with previous (Phase 4A) findings. The site is located in an agricultural area and site vicinity land uses are planned to continue in rural-agricultural land uses.

2. Future land uses in the community will include limited residential growth in the hamlets and in Smithville in accordance with official plan policies. Development in Vineland along the access road is expected to continue as planned with new residential construction.

3. The introduction of the facility as proposed has the potential to create land use conflicts, including reduced enjoyment and use of property; possible out-migration; possible temporary property value reductions; and changes in community character and quality. The extent

of potential in-migration may mitigate some of these conflicts. These potential impacts bear out the preliminary findings concerning impact prediction in the Phase 4A land use report.

4. Land use impacts including nuisance on the access route are expected to be less significant than envisaged in the Phase 4A land use report.

5. Mitigation and impact management measures proposed for nuisance impacts in the site vicinity will in part address land use compatibility concerns. Existing land use controls for the direct impact zone in the site vicinity are generally adequate to control potentially incompatible land use and development activity. Discussions with local and regional planning officials concerning the desirability of additional land use controls in the direct impact zone, are, however, suggested. Such controls should be designed to provide assurance and support for the continuation of agricultural uses in the area. They may also serve to limit development of further residential uses in the area which

otherwise may give rise to additional land use conflicts in the area.

6. Prior to closure of OWMC's facility, decisions on future land use are to be finalized. Agricultural use appears the most appropriate of the options considered, but further investigation as to its viability and feasibility are required. The dismantling of structures and on-going care and maintenance of the site will occur.

MANAGING IMPACT

Without mitigation, the land use impacts and potential land use conflicts arising from introducing an incompatible land use into a rural-agricultural area, are significant in the nuisance impact zone.

Additonal land use controls and monitoring of development activity to supplement existing policies may assist the municipality in managing land use impact.

CONCLUSIONS AND RECOMMENDATIONS

The facility is incompatible with adjacent existing land uses. However, future land use conflict and impact can be minimized by the municipality through land use controls of the existing zoning by-laws and Official Plan policies in the direct impact zone.

It is further recommended that development activity and changes of land use policy be monitored in consultation with the Township of West Lincoln and the Region of Niagara.

The results of actual and predicted land use change, together with other monitoring program results, should be used to reach final decisions on the future land use of the site following decommissioning of OWMC's facility.

1. INTRODUCTION

1.1 PURPOSE OF THE REPORT

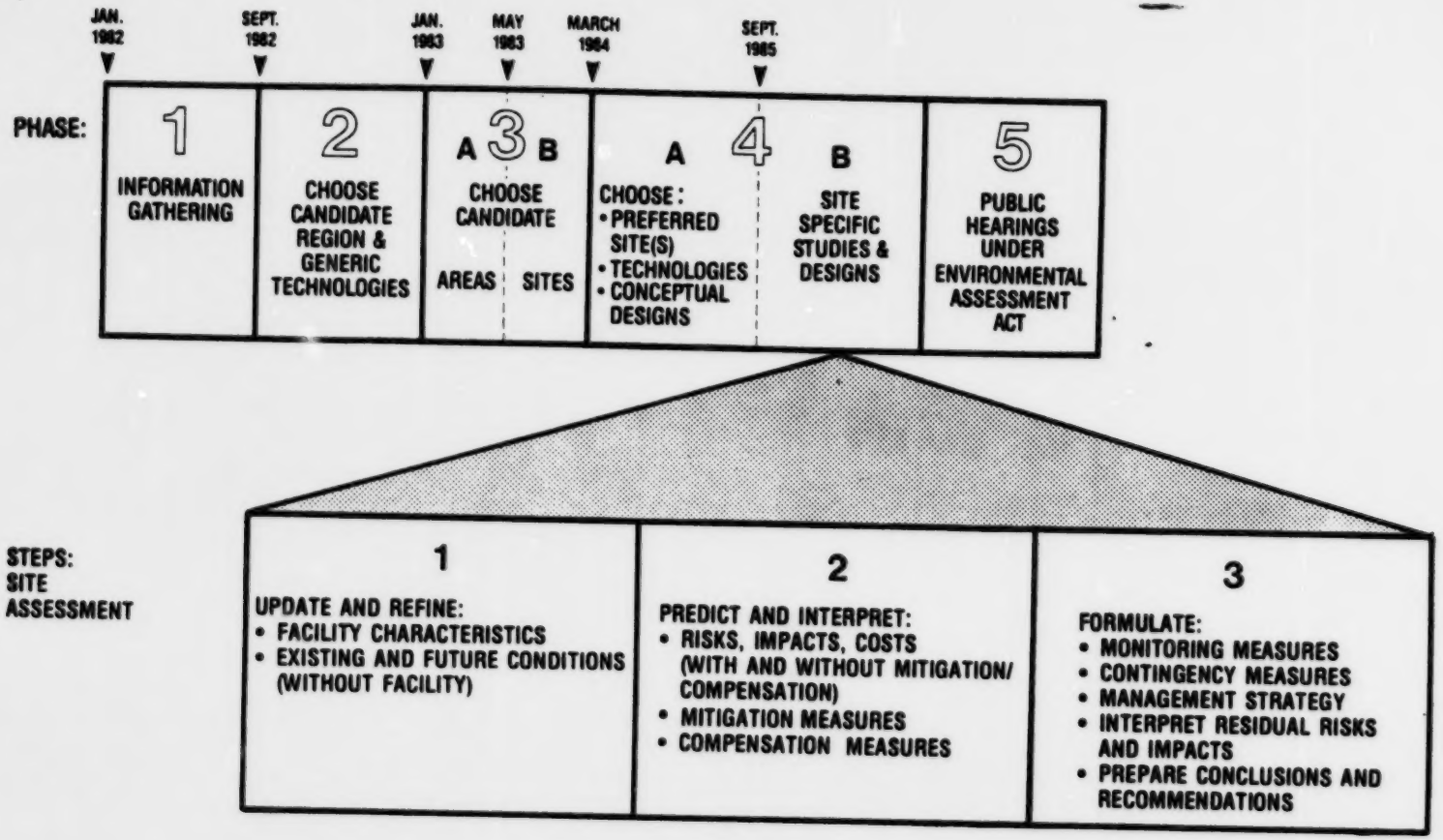
This report documents the land use analysis conducted by Leon Kentridge Associates Limited as part of Phase 4B of the Ontario Waste Management Corporation (OWMC) Facilities Development Process which is illustrated in Fig. 1.1. Phase 4B includes the detailed assessment of the preferred site and surrounding area in West Lincoln Township based on the existing conditions and the predicted effects of the proposed industrial waste treatment and disposal facility.

The specific objectives of Phase 4B include:

(i) Verify the findings of Phase 4A analysis for Site Selection and facility design at the preferred site.

(ii) Define the existing conditions of the preferred site.

(iii) Predict and assess potential risks and impacts which may be associated with the proposed facility design, operations and decommissioning.



OWMC Ontario Waste Management Corporation

DILLON

PHASE 4B:

Facilities Development Process

Figure 1.1

(iv) Identify and develop ways to manage and/or minimize potential impacts.

(v) Identify and develop monitoring programs to assess the effectiveness of these proposed impact management measures (including mitigation, compensation, monitoring, and contingency measures).

(vi) Prepare documentation of Phase 4B to meet the requirements of the Environmental Assessment Act of Ontario.

The purpose of this report is to present the findings of the land use consultant in Phase 4B - Site Assessment concerning land use, land use planning and policy impacts of OWMC's facility in the vicinity of the preferred site[1] and along the access route[2].

---

[1] During Phase 4B, the defined site vicinity was the same as that used during Phase 4A and is defined as the area immediately surrounding the site, extending approximately 2 km. from the site centre.

[2] The preferred access route is from the QEW south on Vineland Town Road (Regional Road 24) and west on Highway 20 to the preferred site.

Township of West Lincoln, Regional Municipality of Niagara. Local Detail.

OWMC Ontario Waste Management Corporation

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PHASE 4B:

Preferred Site

Figure 1.2

1.2 BACKGROUND

During Phase 4A of OWMC's Site Selection Process, eight (8) candidate sites were evaluated and the West Lincoln site (LF-9C) was selected as the preferred site for a waste treatment facility. Specifically, the site comprises Lot 18 and part of Lot 17, Concession 3 in the Township of West Lincoln (See Fig. 1.2). It is bounded to the North by Highway 20, to the east by Schram Road, to the south by Vaughan Road and to the west by agricultural land.

In Phase 4B, the existing conditions of the site, site vicinity and preferred access route have been further evaluated; the potential impact of the facility predicted and measures to mitigate, compensate for and monitor such impacts were developed.

1.3 OVERVIEW OF ANALYSIS

The following steps were undertaken by Leon Kentridge Associates Limited during Phase 4B: Site Assessment.

Step 1: update of existing and future land use conditions.

This included the review of Phase 4A data, Phase 4B Site Assessment reports prepared by other consultants and the updating of official plan amendments and development activity in the Township of West Lincoln, the Town of Lincoln and the Region of Niagara.

Step 2: predict and interpret land use impacts.

This step involved the identification of potential impact on land use compatibility and impacts caused by nuisances to existing and future land uses in the vicinity of the site and along the preferred access route.

Step 3: land use impact management.

Ways to minimize impacts and/or to manage residual land use impacts were considered and recommendations made.

1.4 SCOPE AND LIMITATIONS

Leon Kentridge Associates Limited was instructed to address the land use impact in the site vicinity and along the preferred access route. It is these two areas that are expected to experience land use impacts arising from nuisance and other direct and indirect impacts resulting from the location of OWMC's facility in West Lincoln. The land use analysis was limited to the discussion of land use policy and development activity with Regional and Municipal officials and review by other site assessment consultants.

1.5 DATA SOURCES

Information for this study was obtained from agency contacts and Phase 4B Site Assessment reports of other consultants including:

i) Technical Reports

- S.S. Wilson and Associates; 1987 Site Assessement, Phase 4B: Noise
- Institute of Environmental Research; 1988 Site Assessment, Phase 4B: Social Impact

- Museum of Indian Archaeology (London); 1987 Site Assessment, Phase 4B: Archaeology and Early History
- Morehouse Economic Planning Consultants; 1987 Site Assessment, Phase 4B: Economic Impact
- EDA Collaborative Inc.; 1987 Site Assessment, Phase 4B: Visual Impact
- Ecologistics Limited; 1988 Site Assessment, Phase 4B: Agriculture

ii) Official Plans and Policies

- Ontario Ministry of Agriculture and Food; 1978, "Foodland Guidelines"
- Region of Niagara; 1981 Policy Plan
- Town of West Lincoln; 1979 Official Plan
- Town of West Lincoln; 1987 Official Plan Amendment #8

iii) Agency Contacts

- Mr. Don Logan; Planning Consultant to the Township of West Lincoln; Aug. 1987
- Mr. Travis Secord; Planner for the Town of Lincoln; Sept. 1987
- Mr. Corwin Cambray; Manager of Policy Planning, Region of Niagara, Sept. 1987

1.6 PREMISES AND POSTULATES

Postulates

- Residential development and urban and rural growth trends will continue as planned, in accordance with regional and local municipal plans and policies.
- Proposed water and sewer services to Smithville will be approved and constructed in the next 1 to 3 years.

Premises

- Agriculture will continue to be the predominant economic activity in West Lincoln Township (Ecologistics Limited - Site Assessment, Phase 4B: Agriculture)
- OWMC's facility will commence with a capacity of 150,000 tonnes per annum, increasing to 300,000 tonnes per annum.
- Employment growth will take place in line with economic planning predictions. This will comprise 151 direct jobs on site, 43 indirect jobs in the Region of Niagara and 79 induced jobs, giving a potential employment growth attributable to OWMC of 291. (Morehouse Economic Planning Consultants, Site Assessment, Phase 4B: Economic Impact)

. Construction of OWMC's facility will commence in about 1990 and will operate for a minimum of twenty (20) years. (OWMC, Environmental Assessment, Vol. 5 - Site Assessment)

1.7 REPORT FORMAT

The chapters of this report address the approach taken by the land use consultants and methods followed (Chapter 2), a summary of existing and future conditions (Chapter 3), predicted impact and means to manage this impact for the site vicinity (Chapter 4) and access road (Chapter 5). Decommissioning of the proposed facility and after use are reviewed (Chapter 6) and conclusions and recommendations are presented (Chapter 7).

2. OVERVIEW OF ANALYSIS

2.1 INTRODUCTION

In this stage of the Site Selection Process, efforts have been concentrated on the preferred site, site vicinity and preferred access route and the impacts that OWMC's facility may have. The approach taken was summarized previously in subsection 1.3 on page 6.

2.2 LAND USE IMPACT FACTORS

Four land use impact factors were identified. These are:

- Existing Land Use
- Planned and Proposed Land Use
- Capacity to Absorb Housing Demand
- Industrial Development Potential.

These are discussed below:

i) Existing Land Use

This factor addresses the land use pattern in relation to OWMC's Facility in the site vicinity and along the preferred access route. Use of the

adjacent land will be affected by OWMC's Facility. The extent of this impact was contrasted with the nature of the existing use.

ii) Planned and Proposed Land Use

This factor was used to incorporate future land uses into the analysis and to determine the nature and extent of any future conflict of use between OWMC's facility and planned and proposed uses as contained in official plan policies and reflected in development proposals.

iii) Capacity to Absorb Housing Demand

The OWMC facility is expected to generate employment growth and in-migration of households. The extent and nature of these impacts is dependant upon the ability of West Lincoln and the Region of Niagara to absorb the additional anticipated housing demand. Housing demand was contrasted with the existing housing stock and the potential for future residential development.

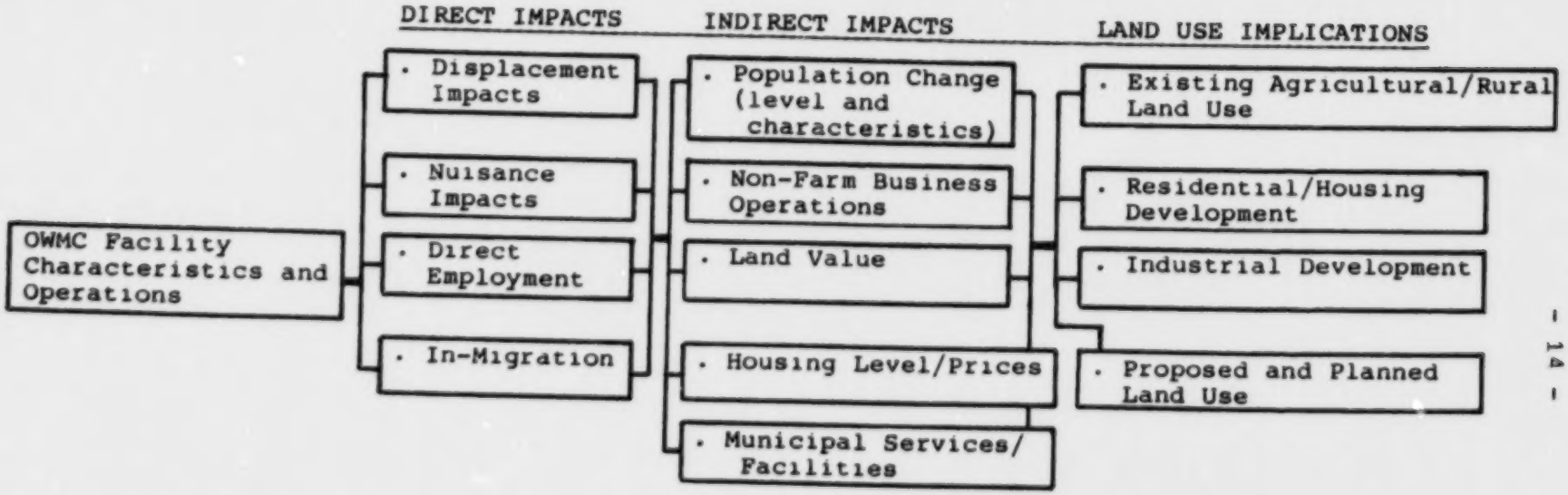
iv) Industrial Development Potential

The potential for future industrial development - either ancillary to OWMC or attracted to the preferred site and vicinity because of the nature of OWMC's facility - was reviewed in terms of land use policies and existing and proposed land use.

The following figure 2.1 illustrates the relationship between the potential land use impacts.

Figure 2.1

LAND USE IMPACTS



3. EXISTING and FUTURE CONDITIONS

3.1 INTRODUCTION

This chapter presents information on existing conditions in the site vicinity and along the access road, including existing land uses, existing and proposed land use policies at the local, regional and provincial levels and development activity in these study areas. The land use consultant utilized land use surveys for existing land use prepared by other site assessment consultants during Phase 4B to update the Phase 4A existing land use data. In addition, a future scenario with respect to land use and development in these areas was prepared based upon planning policies and emerging trends in land use and development which were observed to derive an approximation of probable future land uses in the absence of OWMC's facility.

3.2 EXISTING LAND USE

3.2.1 Site Vicinity

Phase 4A data indicated that there are approximately 75 residences in the site vicinity of the preferred site and approximately 7 commercial uses ranging from a garage, dog kennels, convenience store and other similar small scale uses. Twenty-three properties were determined to be vacant, on which an additional residence could be built.

Figure 3.1 provides an illustration of land use conditions in this area.

3.2.2 Access Road

Approximately 250 residences were recorded along the preferred access road, together with 51 commercial uses and 4 industrial facilities. Seventy-three vacant lots of record were determined.

The community of Vineland, with a population of about 1,000 persons, represents the most significant land use constraint on this access road. As an urban centre of population and other uses, Vineland may have some level of conflict with additional OWMC truck traffic along the access route.

3.3 TOWNSHIP OF WEST LINCOLN OFFICIAL PLAN (1979)

The Township of West Lincoln Official Plan was approved by the Minister of Municipal Affairs and Housing in 1979. The plan was reviewed during 1985 and 1986 and Official Plan Amendment No. 8, the result of this review, has been adopted by the Township and is currently being considered by the Region of Niagara and the Ministry of Municipal Affairs. The existing policies in the Official Plan are discussed below. The policies of proposed Official Plan Amendment No. 8 are discussed in Section 3.6.

The site is designated **RURAL**, as is the majority of the Township. A small area of **HAZARD LANDS** designation applies to the southeast corner of the site. The majority of the site vicinity around the site is also designated **RURAL** and **HAZARD LANDS**. In addition, a **HIGHWAY COMMERCIAL** designation applies to the intersection of Schram Road and Highway 20 (southeast quadrant), and a **RECREATIONAL TRAILER PARK** designation applies to part of Lot 20, Concession 4. These lands are approximately 950 metres from the preferred site. (See Fig. 3.2, West Lincoln Official Plan - Land Use).

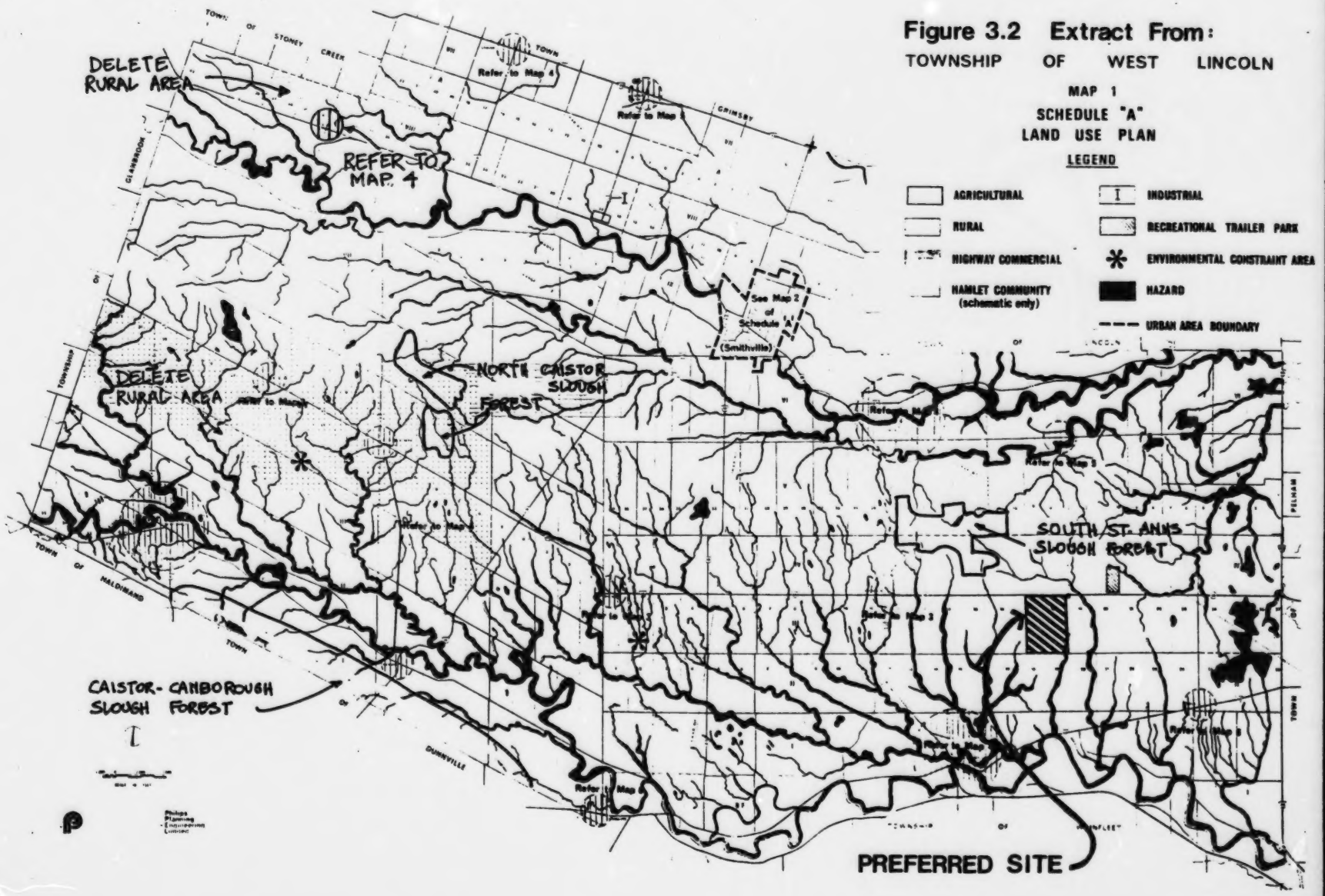


Figure 3.2 Extract From:
TOWNSHIP OF WEST LINCOLN
MAP 1
SCHEDULE "A"
LAND USE PLAN
LEGEND
AGRICULTURAL
RURAL
HIGHWAY COMMERCIAL
HAMLET COMMUNITY (schematic only)
INDUSTRIAL
RECREATIONAL TRAILER PARK
ENVIRONMENTAL CONSTRAINT AREA
HAZARD
URBAN AREA BOUNDARY
DELETE RURAL AREA
REFER TO MAP 4
DELETE RURAL AREA
NORTH CAISTOR SLOUGH FOREST
SOUTH ST. ANNS SLOUGH FOREST
CAISTOR-CANBOROUGH SLOUGH FOREST
PREFERRED SITE
See Map 2 of Schedule 'A' (Smithville)
TOWN OF STONEY CREEK
TOWN OF GRIMSBY
TOWN OF HALDIMAND
TOWN OF DUNNVILLE
TOWNSHIP OF PELHAM
TOWNSHIP OF WAINFLEET

The predominant uses in the **RURAL** category are agriculture, forestry and activities connected with conservation of soil and wildlife. Some other uses, including "facilities of various public utility agencies and small-scale industrial uses" are permitted if they are related to and serve the surrounding agricultural area, such as farm implement dealers (Section 4(5)(a)).

Although the land use schedule does not distinguish between rural and agricultural uses, the policies emphasize that the retention of good agricultural land; primarily, Class 1 and 2 soils are a priority. (Section 4(5)(b)(i)).

Non-farm residential uses are permitted only on rural lands of lower capability soils (Section 4(5)(ii)).

The **HIGHWAY COMMERCIAL** Official Plan category may include motels, automobile sales agencies, drive-in restaurants and other eating establishments, places of amusement or recreation, farm or garden markets, or similar commercial uses and incidental residential uses.

With respect to the **RECREATIONAL TRAILER PARK** designation, these lands are both zoned and designated for use for up to 700 recreational trailers.

An Official Plan amendment passed in 1983 established the boundaries of 13 Hamlet Communities in West Lincoln, including Bismarck, St. Ann's and Boyle.

The **HAMLET COMMUNITY** designation, which applies to Bismarck, about 3 km east of the site, permits single family dwellings and service uses such as retail, agriculturally-oriented industry, schools, parks, churches, doctors' offices, etc. Target populations have not been assigned to the Hamlets.

3.4 PERMITTED USES - SITE VICINITY

In order to gain an appreciation of potential future land use impacts, an inventory of additional permitted uses in the site vicinity has been prepared. These permitted land uses may be categorized as those permitted as of right under current zoning, and those permitted subject to rezoning under Official Plan provisions of the Region of Niagara and the Township of West Lincoln. These uses are summarized as follows:

Permitted as of Right

1. A recreational trailer park on a land area of approximately 60 - 65 acres, on which a maximum of approximately 700 trailer sites would be permitted.

2. Vacant lots of record in the site vicinity on which residences could be constructed, totalling about 23 lots.

3. A range of commercial uses on the C3 (Highway Commercial) zoning at the Schram Road-Highway 20 intersection, which includes hotels and motels.

4. A private club in the institutional zoning located on Elcho Road.

Permitted Under Official Plan

1. Applications for severances for farm related residences for retiring farmers.

2. Applications for small scale commercial or industrial uses which serve the agricultural area.

3. Applications for a variety of non-agricultural uses which meet the requirements of Policy 6.A.6 of the Region of Niagara Official Plan.

4. Applications for consent to create farm related residential lots in situations where the proposed lot is located between two permanent dwellings which are not more than 200 feet apart and on lots not exceeding two acres in area. (Opportunities for this situation are limited.)

5. Any and all public uses for which it can be demonstrated they cannot be reasonably located outside of the Good General Agricultural area of the Regional Niagara Policy Plan.

To conclude, new development could occur in the area around the preferred site either through application for building permit to the Township of West Lincoln in the case of uses permitted under the zoning by-law, or through application for rezoning for uses permitted under the official plan. In particular, the permitted Recreational Trailer Park with a potential of 700 units and the possibility of additional residential development on 23 vacant lots represent uses which would not be compatible with the OWMC facility.

3.5 TRENDS IN DEVELOPMENT ACTIVITY

3.5.1 Smithville

Growth in the community of Smithville has been constrained by the capacity of sewage and water facilities. The major constraint has been sewage treatment facilities which have not permitted growth beyond the present size of about 2,200 persons.

Concerns with respect to the possible contamination of municipal wells have however caused the Ministry of Environment to provide funding for a water main from

Grimsby. In addition, the Region has agreed to construct a sanitary sewer from Smithville to the Baker Road Sewage Treatment Plant in Grimsby. The Township anticipates that these projects will be constructed during 1988 and will be completed by the end of the year or early in 1989.

Both projects are being designed for a total population capacity of approximately 3,600 - 4,000 persons, thus providing a growth potential of 1,400 - 1,800 persons.

As a result of these servicing improvements, the Township Planner anticipates that it will be necessary to review the urban boundaries for Smithville in order to provide for this population growth[1]. He also anticipates that development applications will be submitted in the short to medium term to reflect the availability of this growth potential.

---

[1] Telephone communication with Don Logan, Miller O'Dell and Paul, August, 1987.

3.5.2 Site Vicinity

Discussions with planning officials at the Township of West Lincoln and Region of Niagara indicate that little or no recent development activity has occurred in the site vicinity surrounding the preferred site. The Township planner[1] reports no significant activity with respect to residential severances and no rezoning, official plan or subdivision applications in the rural area or hamlets surrounding the site.

3.5.3 Access Road

The Town of Lincoln Planner[2] advised that land development activity in Vineland, located on the access road to the West Lincoln site, is occurring at a rapid rate, in response to the provision of municipal servicing in the early 1980's and the strong housing market of 1986 - 1987.

---

[1] Don Logan, Miller O'Dell and Paul

[2] Mr. Travis Secord

Figure 3.3 summarizes the development applications currently being processed by the Town of Lincoln for the Vineland urban area.

The Town planner projects that based upon these applications, growth in this area, in addition to the existing population of about 1,000 people could be 541 housing units or 1352 persons (assuming an occupancy rate of 2.5 persons/unit).

3.6 FUTURE SCENARIO - LAND USE

An analysis of future scenarios was undertaken in order to determine likely growth potential with and without OWMC's proposed facility[1] in the vicinity of the preferred site and along the access route. The purpose of the analysis was to estimate potential future land use, based on current and proposed land use policies and anticipated future development.

---

[1] Additional information on future scenarios may be found in other Site Assessment consultants' reports and Volume 5, OWMC Environmental Assessment

TABLE 3.3

DEVELOPMENT PROPOSAL STATUS
VINELAND URBAN AREA, TOWN OF LINCOLN
as of September, 1987

Development	Location	Units Single Family	Semi-Detached	Multiple	Total	Status
Heritage Village Phase I	West Side of R.Road 24	12	-	280	292	Registered
Old Orchard Stage I	West of 23rd Ave. north of 1st Ave.	16	12	-	28	Registered
Old Orchard Stage II		41	44	-	85	Draft Plan Submitted
Summit Ridge	South of Hwy. 8, West of 23rd St.	-	-	36	36	Zoning Approved
Vinehaven	South of Hwy. 8, west of Victoria Ave.	49	-	-	49	Draft Plan Submitted
Victoria Square	North of Hwy. 8, east of Glenview Rd.	25	-	-	25	Preliminary Proposal
Vinewood Park Extension 1	East of Hwy. 24	7	-	-	7	Registered
Vinewood Park Extension 2	East of Hwy. 24	19	-	-	19	Registered
Total		169	56	316	541	

Source: Town of Lincoln Planning Department, September, 1987

3.6.1 Township of West Lincoln Amendment No. 8

Official Plan Amendment No. 8 was initiated by the Township of West Lincoln as a comprehensive review of Township policies for two reasons:

- to bring the plan into conformity with the policies of the Regional Niagara Plan.

- to review the plan at the required 5 year interval.

With respect to the rural area of the Township, the primary change to the plan is to distinguish between areas of lesser and greater agricultural potential. The better lands are to be designated **AGRICULTURAL**; the poorer lands designated **RURAL**.

The Amendment would redesignate the site and the majority of the lands surrounding the site to **AGRICULTURAL**. The most relevant policies are as follows:

- In designated **AGRICULTURAL** areas, these lands are to be protected for present and future agricultural uses.

- Non-agricultural uses shall not be permitted unless otherwise stated as permitted uses in Section 4(5). No other significant relevant changes are proposed by the Amendment.

3.6.2 Region of Niagara Policy Plan

The purpose of the Region of Niagara Policy Plan is to outline broad land use policies for the development of the Region including the delineation of urban area boundaries and rural and agricultural lands.

In the rural areas, the Plan differentiates between agricultural and rural areas on the basis of soil capability, with the best lands for agriculture designated **GOOD GENERAL AGRICULTURAL**. Stringent policies with respect to the intrusion of non-agricultural uses are in place for the agricultural designation.

The preferred site, and all of lands in the vicinity of it are designated **GOOD GENERAL AGRICULTURAL** in the Plan. Although the policies respecting the location of non-farm development in this designation are relatively stringent, there are a number of policies which may provide for non-farm development to occur. These are as follows:

- Public utilities, communications and transportation facilities preferably not to be located in **GOOD GENERAL AGRICULTURAL** areas. However if such uses cannot reasonably be located outside of these areas, they may be located if it is demonstrated that their effect on surrounding **GOOD GENERAL AGRICULTURAL** lands is minimized. (Policy 6.A.13)

- Policy 6.A.6 provides that local municipalities may consider some locations for non-farm development provided that there is a demonstrated need for the proposed use. These are to be designated through an official plan amendment. Requirements must be met with respect to agricultural capability, adjacent non-farm development and separation of the use from other agricultural lands.

- Small scale commercial and industrial uses directly related to the agricultural area may be permitted if it is not possible for such uses to locate in designated hamlets, villages or rural areas. These must, however, serve the agricultural area. (Policy 6.A.8)

- Policy 6.A.9 provides for policies to guide applications for consent in the agricultural area. Generally, these are restrictive requirements, however, Clause (d) of this policy provide that land severances for farm related residential lots in good general agricultural areas may be permitted for a retiring farmer under certain circumstances.

  Also, a farm related residential lot may be created in a situation where the proposed lot is located on the same side of the road between two permanent dwellings which are not more than 200 feet apart and are located on lots not exceeding two acres in area. (Policy 6.A.91B)

. Policy 6.A.12 provides that additional permanent farm related dwellings may be permitted without severance for full time farm help where the need can be substantiated.

3.6.3 Provincial Land Use Policies

The principal provincial policies affecting land use are the Foodland Guidelines (1978) and the proposed "Policy Statement on Foodland Preservation", 1986.

The proposed Policy statement will replace the 1978 Foodland Guidelines and is intended to strengthen policies directed toward the preservation of prime agricultural land while minimizing potential land use conflicts within agricultural areas.

Land uses permitted on prime land are agriculture and those uses compatible with agriculture. Industrial and non-local institutional or public uses are prohibited.

However, pressures for non-agricultural development are recognized. Individual development proposals must comply with specified provincial policies.

In brief, development may be permitted if the need to use the land is justified and documented.

3.6.4 Industrial and Commercial Development in the Site Vicinity

The potential for industrial and commercial development is limited in the same way as other non-agricultural uses in the Township. Industrial land in the Smithville Industrial Park is designated for general industrial uses.

The future presence of OWMC's facility in the Township, or the services installed to serve the needs of the facility (hydro, sewer, water, etc.) may act as a catalyst for industrial development in the immediate vicinity of OWMC's site. It should be noted, however, that the economic consultant[1], in a review of comparable facilities found no examples of such spin-off industrial development.

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[1] Morehouse Economic Planning Consultants Ltd., 1987; Site Assessment, Phase 4B: Economic Impact

It is therefore unlikely, but not inconceivable that future industrial uses would be attracted to locations adjacent or near to the preferred site.

Regional policy and subsequent discussions on this issue with Regional officials, suggest that any scattered industrial development in the rural area or along the access road to the site is to be discouraged.

It is expected, therefore, that future industrial growth will be channelled into existing or approved industrial areas in Smithville and elsewhere in the Niagara Region and that any commercial development occur in areas currently designated in the Official Plan for such uses.

Furthermore, should interest be expressed in other rural lands, official plan policies serve to discourage any necessary applications for official plan amendment and rezoning.

3.6.5 Conclusion

Future development in the Region can be predicted based on the following trends:

- In Smithville, the delivery of municipal water and sewer services will accommodate pent-up housing development demand and provide adequate future capacity for anticipated further growth. Servicing capacity will soon be in place to permit the community to grow to 3,600 - 4,000 persons.

- Recent development activity in Vineland will result in a significant number of new housing units becoming available. Servicing capacity exists to permit Vineland to grow to 7,800 persons.

- It is expected that any new industrial development in the community will be directed to the Smithville Industrial Park, or other existing industrial areas in the Region. New commercial development will also occur in appropriately designated areas.

- Agricultural activity is the predominant land use in the vicinity of the preferred site and this is expected to continue, as set out in applicable provincial, regional and local municipal policies.

- The OWMC project is not expected to result in spin-off industrial development.

4. PREDICTED IMPACT AND IMPACT MANAGEMENT SITE VICINITY

4.1 INTRODUCTION

Predicted land use impacts were identified for the site vicinity; the significance was interpreted and impact management measures proposed. The capacity to absorb housing demand, industrial development potential and existing and planned and proposed land uses were the factors considered. This analysis is discussed below.

4.2 CAPACITY TO ABSORB HOUSING DEMAND

Additional housing demand up to 57 housing units was projected by the economic consultant as a result of the facility[1]. Existing and proposed residential development capacity comprises:

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[1] Morehouse Economic Planning Consultants Ltd., 1987; Site Assessment, Phase 4B: Economic Impact

- Smithville; additional servicing expected by late 1988 or 1989 to permit an additional 1,400 - 1,800 persons.

- Vineland development activity many provide as many as 541 new housing units in the near future.

- Official Plan policy proposes modest infill development in hamlets within the Township of West Lincoln.

- There are 23 existing vacant lots of record within the vicinity of the preferred site.

Taken together, the site vicinity, Township and urban areas of the Region such as Vineland have the ability to absorb all in-migrating housing demands created by OWMC facility employment in addition to growth identified in the Official Plan. Therefore, the impact of the OWMC's facility in this regard is expected to be low.

Mitigative measures and management of the impact include the monitoring of development activity on an

on-going basis. In particular, applications for rezoning and official plan amendment which result from this housing demand should be monitored in the vicinity of the site.

Residual impacts are expected to be minimal given the housing development capacity of the region and local municipality to accommodate residential growth.

4.3 INDUSTRIAL DEVELOPMENT POTENTIAL

The presence of OWMC's facility on the preferred site may result in induced industrial development. However, the likelihood of such development is considered to be low because of the availability of suitably designated industrial land elsewhere in the region, offering better access to major roads and centres of employment. To some extent, however, development activity will be dependant on whether or not there is municipal encouragement of such uses.

In the event that industrial uses preferred a West Lincoln location, industrial land is available in Smithville.

Furtnermore, the general introduction of industrial uses into the site vicinity is discouraged by existing land use policies.

Consequently, the significance of impacts that may arise from potential industrial development is considered to be low. Means to manage potential impact include adherence to existing municipal and regional policy and OWMC's co-operation and support of these policies.

4.4 LAND USE COMPATIBILITY

4.4.1 Existing Land Use

The land use pattern in the site vicinity comprises rural and agricultural activities with limited potential for change. An industrial land use such as OWMC's facility is incompatible with these agricultural land uses. This incompatibility has both direct and indirect impacts.

Direct land use conflicts arise from the nuisance impacts of noise, dust and visual intrusion[1] in the areas adjacent to the preferred site in the direct impact zone[2].

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[1] These impacts are described in full by S.S. Wilson and Associates 1987. Site Assessment, Phase 4B: Noise; EDA Collaborative 1987. Site Assessment, Phase 4B: Visual Impact; Ontario Research Foundation 1987. Site Assessment, Phase 4B: Atmosphere Considerations

[2] This zone is defined by M.M. Dillon, 1987. OWMC Environmental Assessment, vol. V

These impacts have varying significance and although impact management measures may reduce such impacts, nevertheless, the fundamental land use conflict will remain.

Indirect land use impacts were predicted arising from indirect social, and economic impacts. These included potential out-migration of local population and potential property value reduction[1]. These impacts were also considered significant. However, such impact can be reduced through facility design measures - such as landscaping, and by technical improvements at the receiver - such as double glazing, landscaping, fencing and screening.

Again, the basic land use conflict will remain as a residual impact.

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[1] These impacts are described by, Institute of Environmental Research 1988; Site Assessment, Phase 4B Social Impact and Morehouse Economic Planning Consultants, Site Assessment, Phase 4B: Economic Impact

4.4.2 Planned and Proposed Land Use

The local and regional official plan policies and other pertinent policies generally propose the continuation of current land uses.

Potential changes in the site vicinity include development and land uses already permitted, (these are described in Chapter 3 of this report) and include:

- a 700 unit trailer park/campground;
- 23 vacant lots of record;
- the commercial zoning at Schram Road and Highway 20;
- possible future residential severances for farm-related purposes;
- other small scale uses including commercial, industrial and public uses.

While limited development has occurred to date, the realization of any of these developments would contribute to land use conflicts between the facility and surrounding uses.

These potential impacts are, however, of concern. To address this concern, it is proposed that OWMC work with local and regional municipalities to monitor zoning, official plan, severance and building permit applications.

In addition, special land use policies for the direct impact zone may be appropriate. Special control of land use in this zone can ensure that land use conflicts and land use impacts are minimized. Such policies may be contemplated by the municipality upon approval of OWMC's facility and be continued for a minimum of 5 years (or 3 years after operation start-up) similar to the anticipated property value protection plan, and may be extended beyond that time if considered useful or necessary - for example, to assist in post closure land use decisions. An interim control by-law is an example of such a measure.

All such land use measures should be designed to support and maintain rural-agricultural uses in the site vicinity and stability within West Lincoln.

Through on-going liaison and review with local and regional municipalities pressure for change can be controlled and directed as appropriate. The result would be to maintain the social, economic and agricultural status quo through land use stability.

These management measures will be directed towards reducing potential impact. However, residual impacts arising from the conflict of rural/agricultural and industrial land uses will remain.

4.5 CONCLUSIONS

Land use impacts arise from the fundamental conflict between existing rural/residential and agricultural uses and OWMC's facility as an industrial use. These impacts and implications are summarized in Fig. 4.1. This conflict arises from the incompatibility with both existing and possible future uses in the area.

Figure 4.1

DIRECT AND INDIRECT IMPACT IN SITE VICINITY AND LAND USE IMPLICATIONS

Impact	Land Use Implication
Nuisance impacts of dust noise, visual intrusion in direct impact zone	Reduce desirability of area Discourage development activity for permitted rural/residential and agricultural uses
Indirect social and economic impact of out-migration of local population and property value reduction	Need to monitor conflict with existing land use and employ management measures to minimize impacts
Introduction of industrial use into rural/residential and agricultural area	Need to establish clear rationale for facility location and attendant government approvals of land use amendment and rezoning.
	Residual land use conflict will remain.

Several options are available to manage predicted impacts and will be directed towards minimizing such impact. Participation and co-operation between municipal and provincial representatives and OWMC will be required to effectively monitor and manage land use change. The following areas of concern should be monitored to minimize land use conflicts that could occur:

i) housing demand and consumption of supply
ii) industrial development interest and industrial land supply
iii) effectiveness of indirect and direct impact measures
iv) development of the permitted uses in the site vicinity as itemized in Section 3.4
v) development and review of municipal and provincial land use policies and guidelines - to bring OWMC into conformity as much as possible.
vi) need and content of any special land use control measures to minimize future land use conflicts in the direct impact zone.

5. PREDICTED IMPACT AND IMPACT MANAGEMENT - ACCESS ROAD

5.1 INTRODUCTION

The direct and indirect impacts predicted for the access road study area were reviewed for land use implications, and are discussed in this chapter.

5.2 DIRECT IMPACT

The level of impact predicted for visual effects, noise and dust, is minimal along the access route. Visual impact is limited to passing traffic along Highway 20[1].

Noise impact is derived from truck traffic increases - attributable to OWMC - and was calculated to be an increase of less than 2 dBa above the existing traffic noise level. As such, additional noise generated was considered to be not generally perceptible. The exception to this finding is a section of Schram Road

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[1] See EDA Collaborative, 1987

between Highway 20 and the site entrance[1]. However, since there are no residences along this section, impact on existing residences is considered nil, but may limit the future use potential of this affected area for residential or other noise sensitive uses.

Dust impact is similarly limited to the immediate site vicinity and is not considered to have any significant impact on the access route[2].

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[1] S.S. Wilson and Associates Ltd., 1987

[2] Ontario Research Foundation, 1987

5.3 INDIRECT IMPACT

The Phase 4A land use report refers to concerns that the site access route to the preferred site along Regional Road 24 and Highway 20 to Schram Road (passing through Vineland, and a number of residential and commercial uses) was relatively less favoured compared to other siting options[1].

In Phase 4B additional information concerning traffic volumes, noise, dust, etc. along the access route has been studied. Consultants reviewing these data have concluded that the additional traffic related to OWMC's facility is so small as to have a negligible impact on the access route[2].

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1 OWMC Site Selection Phase 4A: Land Use, Leon Kentridge Associates Limited, 1985

2 For further information, see OWMC Site Assessment, Phase 4B (1987), reports by M.M. Dillon, S.S. Wilson Associates Ltd., and Ontario Research Foundation

Anticipated future development in Vineland along the access route is not so much affected by OWMC related traffic as by the overall traffic volume along Regional Road 24 through active development areas. Adverse implications for the urbanized areas of the route are derived from upset conditions in the event of accidental spills and attendant clean-up.

Land use implications arising from the indirect impacts on the access road are considered minimal in the context of existing traffic and development activity. However, such activity should be monitored to ensure that existing and future uses proceed as planned.

5.4 CONCLUSIONS

Land use impact on the access road arising from OWMC's facility was considered minimal. However, possible discouragement of development activity is of concern and this activity should be monitored.

The general level of activity on the access road is such that additional traffic noise and other direct impacts were small.

6. DECOMMISSIONING AND AFTER USE

6.1 INTRODUCTION

OWMC's facility is anticipated to be in operation for a minimum of twenty (20) years. Thereafter, or upon closure of the facility the process of decommissioning will take place. Planning concerning the details of site restoration and future land use will be made throughout the lifetime of the facility and initial planning is appropriate prior to facility approval; however, it should be noted that the Ministry of the Environment will determine the appropriate after use upon decommissioning. To this end, provincial guidelines have been established which concern the health and safety aspects of site clean-up, environmental protection during the decommissioning period and the compatibility of future land uses with the previous use of the site. It is this last point that is significant from a land use perspective. An early resolution of the appropriate end use will influence the scope and detail of the decommissioning and site restoration program.

Decisions concerning the future land use of the site may be reached by an on-going program of work including:

i) the review of applicable Official Plans and policies for the area through liaison with municipal and provincial agencies. Such work has been largely done but should be continued periodically throughout the life of the facilities.

ii) the monitoring of development activity and changes of use in the site vicinity and community to determine trends and pressures concerning future land use.

iii) the review of comparable facilities which have ceased operation and are in the process of site restoration or have completed this program.

iv) the review of results of the monitoring program throughout the life of the facilities concerning health and safety and environmental impact.

6.2 LAND USE OPTIONS

Feasible future land use options for the site may include the following uses:

- Industrial
- Recreational
- Agricultural
- No Use

In considering these options, an industrial use would only be appropriate if local and regional municipal planning policies support such a use and support is also evident from local residents. Although the presence of municipal services makes the site itself attractive for future industry, it would only be appropriate if it is part of a larger industrial land use area, justified by demand for such a use. At present, there is no indication that such demand

exists or is likely to develop. Furthermore, it is not an appropriate use for all of the site area. Such a use may be limited to the central operating area occupied by buildings and structures and excluding the landfill.

Any foundations or buildings either on or in the landfilled area would destroy or reduce the integrity of the landfill area and as such this area would be inappropriate for development purposes.

If recreation uses are considered, there are examples of similar successfully restored landfill areas to show that this is a feasible future land use. Such a use may also be compatible with adjacent rural-agricultural uses. However, there is no apparent need for such a land use of this magnitude in this area and no inherent feature to suggest a recreation or park use.

The third option is an agricultural use. This is the most appropriate end-use and is most compatible with adjacent land use. However, restoration to an agricultural land use requires knowledge of: slope

and contour of the final finished elevations; the depth of soil and whether this serves to limit crop productivity; the need, if any, for irrigation and how this may affect the landfilled areas beneath and the cost of restoration work. The viability and feasibility of site restoration through monitoring during the facility's life will affect future implementation of an agricultural end use; at this time, the viability of such a restored use is questionable.

The fourth option, no use of the land, with appropriate site maintenance and upkeep, represents perhaps the most likely end use of the site, depending upon the results of Ministry of Environment studies of health and safety considerations. Such an option is expected to have minimal impacts on surrounding lands, assuming appropriate maintenance measures are carried out.

Further analysis of these initial options is required. In addition, such a decision requires discussion with the affected community and government agencies. Some of these options may require amendments to existing plans and policies and be contingent on physical or other environmental constraints.

7. CONCLUSIONS AND RECOMMENDATIONS

At the conclusion of Phase 4A, the land use consultant identified two major areas of potential impact in the form of land use conflict, the area immediately adjacent to the site and the access road. Analysis undertaken in site assessment (Phase 4B) bears out this earlier conclusion for the site vicinity.

Nuisance impact in the form of visual intrusion, noise, and dust is anticipated for the site vicinity. This may result in changes of use and activity in the affected area arising from land use conflicts. These in turn may affect the broader community character.

However, nuisance and community character impacts along the access route are expected to be less significant than envisaged in the Phase 4A land use report.

While several mitigation measures are proposed for local nuisance impacts, these will not address land use conflict concerns in their entirety. It is

suggested that some form of additional land use control be discussed with local and regional municipalities to control the addition of new incompatible development.

Such control would be directed toward:

i) monitoring development activity and new land use proposals as they arise.

ii) considering the advisability of amending the zoning by-law for the direct impact zone and/or site vicinity.

Such control may provide community assurance and also support the continuation of rural-agricultural land use in the area. The most appropriate means of implementation may be the introduction of an interim control by-law for the direct impact zone by the Township of West Lincoln. Administration of the by-law for the direct impact area will be by the Township of West Lincoln with input from the OWMC/Community Monitoring Committee, or

sub-committee. This activity should parallel the property value protection proposals for a minimum duration for five (5) years. Land use control and monitoring activity may be extended in some form over the life of the facility. The findings of the land use program may be valuable input in determining future land use upon closure of the OWMC facility.

Land use options for the post-closure use of the site raise unresolved issues concerning feasibility and viability. While an agricultural future use appears appropriate, furtner analysis is required.

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